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Farwest bus lines



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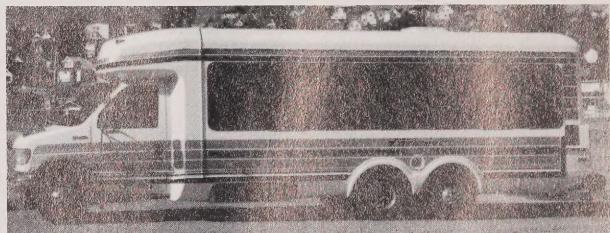


# FleetSmart PROFILES

## FARWEST BUS LINES

### *Fuel-Cost Savings Using Natural Gas*

**Farwest Bus Lines**  
operates a bus charter,  
airport shuttle and  
general delivery service  
in the Kitimat-Terrace  
area in northwest  
British Columbia.  
Over the past decade,  
the company has gained  
a significant competitive  
edge by operating its  
fleet on natural gas,  
while retaining the  
capability to use gasoline  
when necessary.



### **Controlling fuel costs**

As a transportation company, the cost of fuel is one of Farwest Bus Lines' largest operating expenses. When the company decided to explore more affordable alternatives to gasoline in the early 1980s, natural gas quickly emerged as the obvious choice.

"Natural gas was chosen because it makes sense from every angle," explains Philip Malnis, Operations Manager of Farwest Bus Lines for the past 15 years. "It is cheaper than gasoline, and it is environmentally friendlier."

Although Farwest recognized the benefits of natural gas, it had to maintain the gasoline capability due to the distances they travel. As a result, the decision was made to convert the company's gasoline vehicles to bi-fuel operation. Farwest's natural gas bus fleet now includes seventeen 72-passenger and three 29-passenger buses that serve regular daily customers, such as students, as well as less routine users, like tour groups and community clubs. The routes travelled by the buses take in both urban and rural areas.

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## Conversions done in-house

Farwest had to train its own mechanics to refit the gasoline engines and install the natural gas storage tanks under the buses.

"We had to teach our own people to do the work because there was no one that could install the system in the area," stated Mr. Malnis. "Our mechanics were certified on a one week course and quickly mastered the techniques through experience gained working on the fleet. They have had no problems since taking over these responsibilities."

By doing the conversions in-house, Farwest has ensured a minimal interruption in service. Each bus is off the road for only two days while the conversion kit is installed and the vehicle is road-tested.

"The conversion costs about \$2,500 per bus plus labour to install the kit, although it can be a little more expensive depending on the type of conversion kit you choose," reports Mr. Malnis. "This price does not include any government tax incentives or gas company grants that have been available over the years. Our conversion expense on a bus usually pays for itself within one year, depending on how much the bus is driven. The quicker it logs distance, the faster the payback is accomplished."

## *Minimal driver training*

**The company drivers need very little training to operate the converted vehicles, since changing from one fuel to another while on the road simply requires flipping a switch on the dashboard. When this is done, there is only a slight hesitation as the fuel supply changes.**

**"It was simply a matter of showing them the fuel switch and telling them why we wanted to run the engine on natural gas as much as possible," explained Philip Malnis, Operations Manager. "The importance of cost savings were obvious to our drivers, so they understood our objectives." As well, the drivers quickly realized that there wasn't a decrease in power or vehicle performance when running on natural gas, which helped secure acceptance of the new fuel.**

**Farwest encourages its drivers to run on natural gas as much as possible in order to maximize fuel efficiency and minimize tailpipe emissions. Gasoline is regularly used to start the vehicles to ensure that the engine's fuel injectors do not become contaminated or seize up as a**

**result of infrequent use. Maintaining the gasoline option also ensures that the vehicle will have a backup fuel supply should it run out of natural gas while on the road.**



## On-site refuelling

Farwest has also taken the major step of installing natural gas compression and refuelling equipment at its depots in Prince Rupert, Terrace, Kitimat and Smithers. This has proven to be a wise investment, both in terms of refuelling convenience and fuel-cost savings.

"We bought the fast-flow system because it allows you to fill a tank in about three minutes," notes Mr. Malnis, adding that slow-fill equipment would take several hours to fill the same tank. "We own the equipment and take care of the service needs. This requires only about a half-hour of time each week to check the pressure gauges, oil and some other minor components."

Mr. Malnis points out that on-site compression and refuelling equipment is not necessary in order to use natural gas, assuming the fuel is available at a local gas station (natural gas for vehicles is available throughout Canada, except in the Atlantic provinces). However, having a compressor

on-site means the fleet operator can draw natural gas from a regular utility supply line, thereby ensuring a convenient, uninterrupted supply and a lower fuel cost, since there is no retail mark-up. As a result of having the system on-site, Farwest pays less than \$0.285 per litre-equivalent for natural gas, compared to the local gasoline price of about \$0.615 per litre.

"The savings we realize through the use of natural gas are incredible," says Mr. Malnis. "Our fuel costs are half of what they were when we were using gasoline. Natural gas also burns much cleaner than gasoline. This keeps our oil and engine components cleaner and reduces service requirements."

## A strong recommendation

After about 13 years of using this alternative transportation fuel, the management of Farwest Bus Lines remains extremely enthusiastic about the economic and environmental benefits of natural gas.

"Our experience with natural gas has been great," concludes Mr. Malnis. "Returning to gasoline is simply not an option around here; it just does not make sense for our operations. I would recommend natural gas to anyone running a bus fleet, and count it among the best cost-saving initiatives in our business. If you are not using it, you are at a serious disadvantage to any competitor who is."



**For more information on  
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ISBN: 0-662-24900-3  
Cat. no.: M91-247-1996E







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